

REMARKS/ARGUMENTS

The present Amendment is responsive to the non-final Office Action mailed July 3, 2007, in the above-identified application.

Claims 2 and 3 are canceled without prejudice or disclaimer. Therefore, claims 1 and 4-6 are the claims currently presented for examination in the application.

Claims 1 and 6 are amended to clarify features recited thereby.

Rejection of Claims 1 and 4-6 under 35 U.S.C. § 103

Claims 1 and 4-6 are rejected under 35 U.S.C. § 103 as being obvious from Sehgal, U.S. Patent Application Publication No. 2004/0050406. Reconsideration of this rejection is respectfully requested.

Sehgal discloses a method for enhancing removal of photoresist or resist residue from a substrate (Sehgal, Abstract), and discloses that the CO₂ heated by the heater 24 is introduced into the pressure chamber 10 so that the substrate 26 is thus brought to its supercritical state in the pressure chamber 10. Sehgal also discloses an element that supplies gas to the processing chamber.

Sehgal does not disclose or suggest a first valve operable to release vapor to said processing chamber, the vapor being generated from a solution of the same type as the processing solution, as required by claim 1. Further, Sehgal does not disclose or suggest a heating and pressure element operable to supply vapor to the processing chamber when the first valve is brought to an open state to thereby realize a rise in temperature and pressure in the processing chamber, as further required by claim 1.

Accordingly, Sehgal is incapable of disclosing or suggesting an apparatus that provides the processing disclosed in Applicant's disclosure (see steps S14, S16 and S17 of Fig. 2) and required by the above-cited features of independent claim 1. Stated differently, Sehgal does not disclose or suggest a substrate processing apparatus that is structured to supply vapor of the high temperature and pressure generated from the predetermined processing solution (controlled via the first valve operable to release vapor to the processing chamber), to release the ambient atmosphere, and to supply the inert gas (via the gas supply element, also provided in claim 1).

Moreover, Sehgal does not disclose or suggest a controller that is operable only subsequent to the operation of the first valve and the releasing of the atmosphere, to control the gas supply element to supply inert gas, as further required by claim 1.

The Office Action acknowledges that Sehgal does not indicate the releasing of the pressure in the pressure chamber when the processing solution reaches a certain temperature in the pressure chamber, but alleges that such a limitation is “mostly concerned with operation of the apparatus rather than with the structural elements.” Applicant notes that the claim as worded requires a substrate processing apparatus with elements that are structured to perform the described operations. Accordingly, it is respectfully submitted that Sehgal does not disclose or suggest a substrate processing apparatus that includes the structures corresponding to the recitations of claim 1.

Claims 4-6 depend from claim 1 and are therefore patentably distinguishable over the cited for at least the same reasons.

Rejection of Claim 3 under 35 U.S.C. § 103

Claim 3 is rejected under 35 U.S.C. § 103 as being obvious from Sehgal in view of De Young et al., U.S. Patent No. 6,782,900. Reconsideration of this rejection is respectfully requested.

Claim 3 is canceled without prejudice or disclaimer, and accordingly this rejection is moot. Nevertheless, Applicant notes with respect to the combination of Sehgal and De Young as follows.

The Office Action acknowledges that Sehgal does not disclose or suggest a gas supply element for supplying inert gas to the pressure chamber. However, the Office Action alleges that such an element is conventional for supplying inert gas to the processing pressure chamber to displace process fluids from the processing chamber, and cites De Young, which allegedly teaches a pressure processing apparatus in which an inert gas supply, such as a tank filled with helium, nitrogen or argon is connected to the pressure chamber in order to displace process fluids between processing steps.

It is respectfully submitted that, even if combined, Sehgal and De Young do not disclose or suggest the recitations of independent claim 1. Claim 1 requires a controller operable to control the second valve to release the ambient atmosphere from the processing chamber when

the processing solution in said processing chamber reaches a temperature at a boiling point or higher, and subsequently to control the gas supply element to supply inert gas to said processing chamber. Such a controller to control the second valve and then, when a predetermined condition is met, for controlling the gas supply element to supply inert gas to the processing chamber, is not disclosed or suggested by the cited art, even if combined. Accordingly, claim 1 would not have been obvious to a person of ordinary skill in the art based on Sehgal and De Young.

In view of the foregoing discussion, reconsideration of the rejections is respectfully requested and allowance of the claims of the application is believed to be warranted. Accordingly, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

Should the Examiner have any questions regarding the present Amendment or regarding the application generally, the Examiner is invited to telephone the undersigned attorney at the below-provided telephone number.

THIS CORRESPONDENCE IS BEING
SUBMITTED ELECTRONICALLY
THROUGH THE UNITED STATES
PATENT AND TRADEMARK OFFICE
EFS FILING SYSTEM
ON OCTOBER 3, 2007

MM:GB:ns

Respectfully submitted,



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